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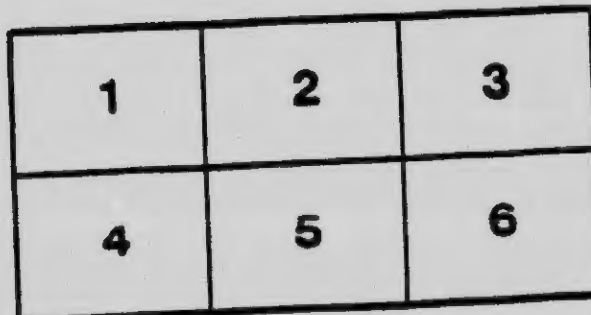
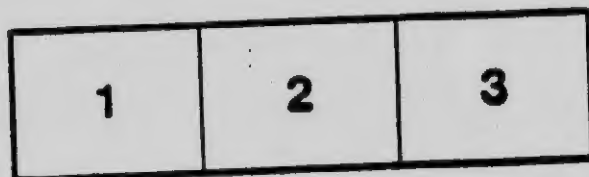
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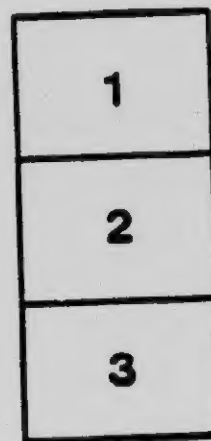
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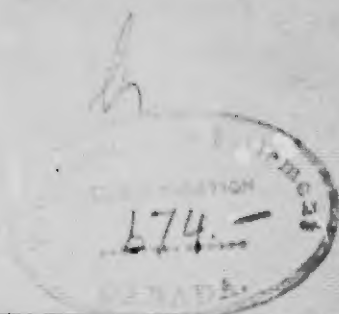
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THE
PULP INDUSTRY IN CANADA

BY
D. LORNE MCGIBBON

1902

TS 1173
M3

THE
PULP INDUSTRY IN CANADA

BY
D. LORNE MCGIBBON

MANAGER,
THE LAURENTIDE PULP CO., LTD.,
GRAND MÈRE, P.Q., CANADA.

PAPER GIVEN AT CANADIAN FORESTRY ASSOCIATION CONVENTION,
MARCH 7TH, 1902, AT OTTAWA, ONT.

MONTREAL
GAZETTE PRINTING COMPANY,
1902

TS 1173

M3

THE PULP INDUSTRY IN CANADA

Mr. Chairman and Gentlemen : --

You will notice by referring to your programme that the title of the paper which I am to give you is "The Pulp Industry in Canada." The pulp industry in Canada embraces so much matter, that were I to attempt to cover it in all its details, I would consume so much of your valuable time and attention, that I feel sure you would never want to hear the word "Pulp" mentioned again.

When your worthy Assistant Secretary first requested me to give a paper before this Convention, he mentioned the fact that Mr. J. C. Langelier, Superintendent of Forest Rangers for the Province of Quebec, in his paper entitled "The Pulp Industry in relation to our Forests," had made reference to the complete system with regard to cutting timber, which would assure a supply *ad infinitum* for the Laurentide Pulp Company, and asked me for a paper dealing with the system and organization of the operation of our timber limits, as well as the system pursued for the preservation of our forests. In reply to this request I stated that I thought a paper on the subjects he mentioned would be superfluous at this present time, owing to the fact that enormous quantities of pulp wood were allowed to leave Canada with a very small export charge, and that in the procuring

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of pulp wood for export more ruthless cutting, damage to forests and depreciation of the same took place annually than the Forestry Association could hope to offset by the preservation of limits controlled and owned by the Crown or Canadian manufacturers. At the same time I mentioned the fact to your Assistant Secretary that I was not competent to give a paper on forestry or the preservation of forests, but that if it would be acceptable to your Association, I would endeavor to show that Canada was not pursuing a proper policy for the preservation of her forests as an asset, nor getting the best possible results.

As you are all probably aware, pulp, whilst being a manufactured article from pulp wood, is still only a basis of raw material for the manufacture of paper. The two principal grades of pulp in use to-day are mechanical or ground wood pulp, and chemical or sulphite pulp. Mechanical or ground wood pulp is almost explained by its name, as the process of manufacture is very simple, consisting principally of grinding wood into pulp. Chemical or sulphite pulp is a very much more intricate process of manufacture, and consists in treating the wood by chemical process, and thus separating the fibres of the wood by the extraction of resinous material. In the manufacture of paper 70% to 75% of the pulp used is mechanical, and the balance, 25% to 30%, is chemical. Paper made altogether from mechanical pulp would not be satisfactory for newspaper or any of the finer grades, as the fibres of the pulp are too short to give the paper sufficient strength, so that it is necessary to use a proportion of sulphite pulp, which by its process of manufacture retains the long fibres of the wood, and thus gives the strength to the paper.

The first consideration, therefore, to the manufacturer of pulp in his raw material and power. An enormous quantity of water power, on account of its cheapness, is necessary for the manufacture of mechanical pulp, and therefore it is usual for a pulp manufacturer to locate his mill at a point where there is good water power and where his source of supply of pulp wood is close at hand. A pulp manu-

facturer, having his water power assured and his source of supply of pulp wood for his raw material located, then figures on the quantity of raw material he will require for a season's operations. For the manufacture of a ton of mechanical pulp it takes a trifle over a cord of spruce wood, and for the manufacture of a ton of chemical pulp it takes almost two cords of spruce pulp wood. If, therefore, the pulp manufacturer has a capacity of so many tons of each kind of pulp per day, it is very easy for him to figure the exact amount of pulp wood he will require for the operation of his mills for a year. If he should have his own limits, the first step in procuring his pulp wood is to know exactly what his limits consist of and the amount of available spruce logs that are contained in same. As the Government regulate the size of a tree to be cut, he must therefore only figure on cutting trees in accordance with these regulations. In the case of the Laurentide Pulp Company who own such a large area of lumber limits, we have found it more practicable to divide these limits into three districts, having a superintendent over each district. We have also found it much more practicable for each of these superintendents, by giving his whole time and attention to his district, to become thoroughly acquainted with all rivers, streams and lakes in same, and where the best points are to procure logs to advantage, rather than have one or two men for the entire limits, which by their large area would only permit them, to say the least, to have a superficial knowledge of it all.

Having, then, determined the quantity of pulp wood to get out in a season, and having your limits divided into districts, with a man thoroughly familiar with the conditions of each district, you determine the quantity you will get from each district. As a pulp manufacturer wants to ensure a uniform cost of his raw material for years, it is therefore bad policy for him to attempt to pick out the easiest spots to get pulp wood one year, and leave the harder and more expensive places for a following year. Under the circumstances it is necessary for him to average this up,

taking some of the expensive wood each year so as not to leave it all for future operations. It is the policy of most pulp manufacturers to procure their pulp wood, or, at least, a large portion of it, by letting contracts to jobbers or contractors. This to my mind is a very cheap way to procure pulp wood, but from my experience the results of this method are but temporary. It has been the practice in the past to allot a certain territory to a contractor and give him a contract for a certain number of logs. As far as I can learn, the territory allotted to a jobber in the past has been much too large for the quantity of logs that his contract calls for. As a natural consequence this jobber, who has only one aim, viz. :—to make money out of his contract, picks out the easiest spots in his territory, and no matter whether there are some large fine spruce logs in his territory that should be cut, but which would cost him a trifle more to get out, he will leave these standing. The following year, therefore, when a contract is let in the same territory a higher price is demanded owing to the timber being scattered and only the hard places left to lumber in, and it usually ends up with the result that no contractor will go into this territory except at an exorbitant price, and it therefore falls to the lot of the pulp manufacturer to establish his own camps and get out the remaining available logs at a very high cost. This point I wish to emphasize more particularly, and that is, when a contract is let for a certain quantity of logs the area of territory should be limited, and so thoroughly explored that it can be cleared systematically of the logs that should be cut. As contractors for logs are more or less men of moderate means, and who, if a bad season sets in and a possible loss in fulfilling their contract stares them in the face, either fall far short of their contract or abandon it, it is therefore necessary for a pulp manufacturer, in order to be safe regarding his raw material, to establish some of his own camps which will get the logs out no matter what the set-backs are. It has been amply demonstrated that a camp, or camps, operated by a company cannot get logs out as cheaply as a jobber or con-

tractor, at least in the Province of Quebec where the timber is scattered and the country very mountainous, but the result obtained by operating camps direct are in the long run very much more beneficial than from contractors. The Laurentide Pulp Co., as mentioned before, having such a large territory, and who require such an enormous quantity of pulp wood for the operation of their mills, have found it advisable to employ two inspectors, one for the jobbers or contractors and the other for its own camps. It is the duty of the former inspector to inspect regularly and frequently all jobbers' camps, and see that these jobbers do not waste the timber nor break the Government regulations. He also sees that all logs are stamped and properly culled, and when he finds anything out of the way, he reports it direct to the management of the Company. The inspector of the camps acts in a similar capacity, but reports on the general conditions of the camps in addition to the above.

Another bad feature of giving contracts to jobbers for logs is, that it is usual to give a contract for a certain quantity of logs to be of a uniform length. Suppose, for example, that a contract has been let for 50,000 spruce logs 13 feet in length, 7 inches at the small end and up. A contractor, if he cuts down a tree, will only make from this tree logs of 13 feet in length, and I have found from personal experience that a large proportion of these trees would permit of another log being cut from 8 to 10 feet in length, and still not be under 7 inches in diameter at the small end. This part of the tree is just as good for making pulp as anything else, but, as you know, the cost of handling and driving a small log is almost as great as a large log and if a manufacturer only considers his immediate circumstances, and his immediate cost of raw material, he will not bother with these ends of a tree, but, if he considers the fact that his raw material is worth money, and that by leaving these ends of the trees in the woods he is simply throwing away a part of his assets, and in addition to this is enhancing the danger of forest fires, he will, even at a slight extra cost, have them taken to his mills with the

larger logs. In the case of a company operating its own camps this should be done in any case. In the case of the logs being cut for export to the United States, these ends of trees are not considered of any value.

The next step in the cost of raw material is the handling and driving of these logs to the pulp mills, and this is a point I wish to emphasize very particularly. The cost of pulp is determined largely by the quantity produced, as the fixed charges of a pulp manufacturing concern are almost the same whether a larger or smaller quantity of pulp is manufactured. It, therefore, is apparent that a large pulp mill has an advantage over a smaller one, and this refers more particularly to the cost of handling and driving the logs to the mill. As you are all no doubt aware, it costs very little more to drive a larger quantity of logs than a smaller quantity, and therefore if a pulp manufacturer has a large quantity of logs to handle, it pays him to make permanent improvements on his streams, lakes and rivers, so as to lessen the cost of driving operations as well as ensure the safety of the logs.

The cost of manufacturing pulp is determined largely by the cost of the raw material, viz. : pulp wood, and it is natural therefore for a pulp manufacturer to endeavor to obtain his supply of raw material at the very lowest possible cost. In doing this, however, it seems to me that in the past, at least, it has been done at the expense of his prime asset, viz. : his pulp wood limits, and he will find that each year his cost will grow greater ; whereas by systematically getting a proportion of expensive wood each year with the cheap wood, and eliminating all sources of wastefulness in the cutting of logs, and by making improvements so as to lessen the expense of driving operations, he will in the long run make more money and be better off than the manufacturer who simply looks one year ahead.

The raw material, or pulp wood logs, having arrived at the booms in front of the mills, their conversion into pulp is an entirely different business from the logging operations. I do not intend to go into the details of manufac-

turing pulp wood into pulp, except to say that so far as the pulp wood is concerned, it should be as carefully watched as coal or any other article that costs money. I fear however, that a great deal of waste is incurred in preparing the pulp wood for manufacturing. In the case of the Laurentide Pulp Company, we allow nothing to go to waste, and even if a block of wood should come along with a certain amount of rot in it, instead, as is the usual custom, of using it for fire wood, the rot or imperfections in the wood are extracted and the balance used for manufacturing pulp. In Canada there are more mills manufacturing mechanical pulp than anything else, and as this is a comparatively easy matter and requiring less capital, it is bound to grow considerably. The manufacture of chemical pulp is very much more intricate, entailing more expert labor, and therefore has not grown to the extent of mechanical pulp.

As stated previously, the manufacture of pulp is only a step in the manufacture of paper, and the object of my paper is more for the purpose of showing what Canada is losing by not manufacturing this pulp into the finished product of paper than anything else. As an example of what this means to Canada, we will commence with a cord of wood. We will say, for convenience sake, that a cord of wood is worth \$3.50. When this is exported out of the country all the benefit Canada derives from it is the amount of labor expended in cutting this cord of wood, and the stumpage, if any, which is paid the Government. By converting this cord of wood into mechanical or ground wood pulp, it means an extra expenditure in Canada of at least \$7.00 per cord for both labor and material, and all of which can be obtained and produced by Canada. By converting a cord of wood into chemical or sulphite pulp it means that an extra expenditure of at least \$15.00 per cord is made for both material and labor. All of this, with the exception of the sulphur, which has to be imported from Sicily, can be produced in Canada. In the conversion of these pulps into paper, it means that a cord of wood, origin-

ally costing \$3.50, is manufactured into a finished product worth about \$40.00 per cord, all of which is for material and labor, the most of which could be produced and manufactured in Canada if the business were sufficiently large. At the present time there are over one million cords of pulp wood exported into the United States annually, worth, we will say, for convenience sake, three and a half to four million dollars. If this quantity of one million cords of pulp wood were converted into pulp, and then into paper in Canada, it would mean that an expenditure for labor and material in Canada would take place, of over thirty millions of dollars annually. For the manufacture of this large quantity of pulp and paper it would require, however, several times this amount for permanent investments in the limits, water power, mills and machinery, and this in itself would mean a huge thing for Canada.

It therefore seems to me that the principal question before the Dominion and Provincial Governments is, first, how to accomplish the manufacture of this large quantity of paper in Canada; and, secondly, how to dispose of it after it is manufactured. At the present time the United States exact a duty of \$1.67 per ton for mechanical, or ground wood pulp, and \$3.33 per ton for chemical, or sulphite pulp, and have a duty on newspaper that is prohibitive. The effect of this policy is apparent on the surface, as it provides the manufacturers in the United States with their raw material in a partly manufactured state at a low cost, and prohibits the competition of foreign paper. In addition to this, Canada seems to be the ally and friend of the U. S. manufacturers, as it allows them to come into Canada and procure their raw material, in the shape of pulp wood, with little, if any, charge, and the U. S. Government allow it to enter into the United States free of any duty. The effect of this policy on Canadian manufacturers is, to say the least, very unfair. The Canadian manufacturer of both kinds of pulp has to compete with the American manufacturer of both kinds of pulp at a disadvantage by the amount of duty imposed by the United States Gov-

ernment on the pulp. This competition at certain times has been ruinous to the Canadian manufacturer. As an example, during the summer of 1901, the paper market was very dull, and, as a consequence, the amount of pulp consumed by paper manufacturers diminished considerably. The over-production of pulps in Canada and the United States was very large, and the prices dropped until they reached a point where a loss was incurred. The over-production was caused *absolutely* by the American pulp mills that procured their supply of pulp wood from Canada, and, as a consequence, owing to the protective duty the United States pulp manufacturers had, the Canadian pulp manufacturers were obliged to curtail their manufacturing operations until such time as prices reasserted themselves. This state of affairs would not have happened had not Canada allowed her pulp wood to go out of the country for a mere song. As I mentioned before, the over-production of pulp was caused by the pulp manufacturers in the United States who procured their supply of wood in Canada. If these mills had been out of the market, it would not have been necessary for Canadian manufacturers to have curtailed their operations last summer. It is true people say Canada has the world for its markets in pulp and paper, but I am afraid too many people hazard this opinion without giving it the consideration it demands. In England, where our principal market at present for both pulp and paper lies, we have the serious competition of Norway and Sweden, and it is no mean competition. Whilst I do not believe that either Norway or Sweden have as good wood for manufacturing pulp or paper as Canada has, still they have many advantages that we have not, and, as a consequence, they are able to sell their pulp and paper in England at a very low cost, and which Canada is obliged to meet in order to procure business.

It certainly seems absurd that Canada should allow her pulp wood to be exported from the country for a very slight charge, and that the American manufacturers, who use this wood, do not have any competition in the finished

product, paper, from Canada in the United States,—but when Canada exports her paper to England or any other foreign country, she not only has to compete against paper and pulp manufactured in Norway and Sweden, but also comes into competition with paper and pulp manufactured in the United States, from Canadian wood obtained from Canada almost for nothing. In addition to all this, the Canadian manufacturer to-day labors under great difficulties. He has to import from the United States the greater portion of his machinery and the clothing of his paper machines,—consisting of felts and wires,—which amount to many thousand dollars a year ; he has to use coal that is protected by the Canadian Government to the extent of 60c per ton ; he has to import his china clay from England, and the best grindstones also from the same place ; he has to bring his sulphur from Sicily, and his chemicals from various countries of the world ; he has to employ his expert labor from the United States, and which is controlled by a union which curtails his production, and which union while enforcing this rigidly on Canadian manufacturers, makes exceptions in the United States. We are also handicapped in our export trade during the winter months by the long haul to our winter ports.

To sum up the whole matter, it appears very much as if the Canadian Government did not want to increase the manufacture of pulp and paper in Canada, but rather would prefer to supply American manufacturers with their raw material, and be satisfied with a small revenue derived from the same. In conversation with a capitalist in New York two or three weeks ago, and who is largely interested in Canadian Timber limits, I used the argument that if Canada prohibited the exportation of pulp wood until such time as the American Government abolished or diminished its duty on pulp and paper, the American manufacturers would in a very short while remove their mills to Canada. This gentleman, after arguing this point for a long time said :—

“I believe that what you say is correct, but I cannot understand why you, representing a large manufacturing

"concern should wish to make this fact prominent, as it
 "would only invite competition for the Company you re-
 "present." My answer to this was, that we would prefer
 all the competition that would take place, and having the
 United States market open to us, rather than have less com-
 petition and our present markets. In conversation with
 another United States manufacturer within the last few
 days, he made the same statement, and from my own per-
 sonal knowledge, I feel quite certain that it would not be
 long before a certain proportion of the United States manu-
 facturers would be obliged to remove their mills to Canada
 if they wished to compete with Canadian manufacturers
 when the United States market was open to them.

It is true that the United States is not wholly dependent
 upon Canada for its supply of Pulp Wood, as is evident
 from Ex-Governor Powers' remarks at the Paper Trade
 Banquet in New York two or three weeks ago. Ex-Gov-
 ernor Powers made the statement that in Maine alone they
 had 12,000 square miles of territory, containing five hun-
 dred million feet of spruce, and which, in his judgment, if
 properly handled, would be an inexhaustible supply for
 American paper manufacturers. I do not agree with Ex-
 Governor Powers in this statement, as five hundred million
 feet of spruce is a mere bagatelle to United States manu-
 facturers of pulp and paper.

In addition to this, the Canadian Government said, a
 short while ago, to reduce the duty on newspaper ex-
 porting into Canada. The Canadian market is so small that this
 only interferes with the smaller mills who are dependent
 on the Canadian trade for their existence, but it certainly
 seems unfair that the Canadian Government should do this,
 as it will enable the United States paper mills, when their
 production is greater than the demand, to dump their sur-
 plus in Canada. As long as the United States have a pro-
 hibitive duty on paper, Canada should do the same, but an
 abolishment of both would be the best.

I ask you also, why is it that American capitalists have to-
 day invested in Canadian timber limits and Canadian water

powers without developing the powers and cutting the limits? Why is it, I say, but to prepare for the time when Canada will come to her senses and they will be obliged to manufacture in Canada, or otherwise get out of business. These men are not short-sighted, and although they did procure a promise from the Quebec Government that no extra stumpage over and above 25c. per cord would be charged by them for the next ten years, they still feel that it is necessary to look still further ahead than this. I ask you also, why it is that the Quebec Government, a short while ago, raised the stumpage on pulp wood cut from Crown timber limits for export into the United States to \$1.90 per cord, thus giving a preference to the Canadian manufacturer of \$1.50 per cord—why is it that they reduced this later on to 65c. per cord without any advance notice of what their intentions were? Why is it that they reduced this to 65c. per cord, thus reducing the preference in favor of Canadian manufacturers to 25c. per cord? Would it not be better for the Quebec Government, instead of selling its timber limits with a guarantee of this kind, to assist in building up Canadian manufactures of pulp and paper, and which would necessitate their purchasing further timber limits from the Quebec Government, and in the development of these, the stumpage to the Quebec Government would increase and be a regular source of revenue, rather than to continue its present policy?

The Laurentide Pulp Company to-day manufacture about 100 tons of paper and cardboard per day,—125 tons of Ground wood pulp per day,—70 tons of Sulphite pulp per day, and cut ten or fifteen million feet of pine lumber each year. To do this, it has required an investment of nearly four millions of dollars,—the annual payment in wages of about one million dollars, and as a result of this, the town of Grand Mère, wholly and absolutely dependent upon the Laurentide Pulp Company, has sprung into existence, and to-day has a population close on to 5,000. In addition to this, the villages adjacent to Grand Mère have all grown, and the rural population in the vicinity of Grand Mère is

thriving and doing well. Canada could have twenty such mills as these in a short time, if she would come to her senses and adopt the proper policy. Would it not be better for Canadians to have a permanent advancement of this kind, even though it did take a few years to obtain?

Possibly the question might arise as to the Canadian farmers who dispose of their pulp wood at the present time. These farmers would have a better market, with just as good prices as they have at present, if their purchasers were Canadian manufacturers instead of American manufacturers. Whilst on this subject, I might make mention of the fact that the so-called farmers of Canada who dispose of their pulp wood to American manufacturers do not deserve all the sympathy and support that one would think. In our own districts, I know several instances where these men obtained lots from the Government presumably for settling purposes, but who, when the timber was cleared off, obtained another lot in somebody else's name. These men are doing more to damage Canadian forestry than any one else, and it is the duty of the present Government to give this special attention and see that it is stopped as soon as possible.

Canada has an opportunity to-day to show her wisdom and her foresight. If the Government would take up this question as seriously and as vigorously as the Department of Public Works has taken up the question of River and Harbor Improvements, we might hope in the near future to see the paper industry of the world centred in Canada. At present Canada is floundering in the dark, and her wide awake competitors are taking advantage of this. Nothing in this world is gained without a struggle, and a struggle cannot take place unless the parties are determined. Canada should be determined to get the most out of her timber assets, and should not fear to take a decided step in this connection. The trouble is that Canadian politicians do not study the question sufficiently, and are too easily swayed by outside influence. I do not say it would be a wise thing for Canada to always have an export duty on her pulp wood, but I do say that there should be a sufficiently high export

duty on pulp wood so as to make it practically prohibitive until such time as the United States Government open their market for the finished product to Canadian manufacturers. This is only fair and just, and I cannot see why any hesitation should take place in adopting it. Canada has an opportunity now which should be taken advantage of. If she does not do so quickly, it simply means that she is not only losing an opportunity, but is losing time that cannot be recalled.

I trust, Mr. Chairman and Gentlemen, that I have not intruded on your time too long, and that I have not deviated from the subject of my paper too much. Your Association would be many times more valuable to Canada's interests than it is if the development of the forests was done by Canadian manufacturers, and the material taken from your forests manufactured into the finished product in Canada rather than as it is at present.

I thank you one and all for your very kind attention.

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